

THE GARZETTE



Volume 18, Issue 1

147.075+

444.525+5mhz

53.110 -1mhz

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A Note from the President, Norm Schklar, WA4ZXV

And now it's 2009! The year to get the economy back on its feet, the year to upgrade the license, or learn a new mode, the year to send a QSL to everyone you contact over the air, the year to pay more attention to the spouse, the year to be more involved with GARS and your fellow amateur radio operators, the year to show a friend or neighbor your hobby and get them interested.

Happy New Year

TechFest is January 10th. I hope everyone gets a chance to come by and share some time with the many clubs and groups that will be displaying. For many, it may be a chance to be exposed to something new in Amateur Radio. For others, it's a chance to share your knowledge with newcomers and interested old timers. Interested in just plain old HF radio, we'll have two stations set up. So if you want a chance to see how it all fits together, come on out.

Elections are in February. Nominations are accepted at the January meeting and again from the floor at the February meeting before the vote. What a great time to get involved in the month to month operations of the club. You don't have to be an elected official, join a committee or work group. If you have feeling about who should be nominated for office, please contact one of the officers or directors. Contact information is on the web site.

Winter months are contest months. There is something scheduled almost every weekend. If you haven't worked contests in the past, just go to one of the contesting web sites and look at the schedules and rules. Listen around a little, get the swing of how it works and jump in. You know it's called "Radio Sports" that's because there is a lot of sportsmanship and practice required to be a winner. And though you might not think it, working a contest is good practice for working emergency traffic.

And yes, we'll be looking for volunteers to help with our major fund raiser. I looked at a schedule, and I believe it's the last weekend in January 30,31 and February 1. Yep it's the dog show. Weather will be sunny and warm and no rain. I wish!

It's not too soon to start thinking about Field Day. We need some help with publicity and community awareness and scheduling operators. We may want to set up a monitoring station that can be manned the whole time looking for band openings. Some of the bands come and go, and if you don't have someone monitoring, you can miss a great opening. We are always looking for way to improve the activities, so if you have ideas, let's get them out and discussed. Those last couple weeks are just too busy to start thinking of changes. We need to make those plans now. Don't forget the "Want Swap and Information Net" every Monday evening at 8:00 on the club 2 meter repeater, and the 6 meter net on the 6 meter repeater most Wednesday evening at 9:00. And not a GARS net, but if you haven't made the 10-10 Margareta Net at 9:00 Saturdays on 28.330, you might want to give it a try.

Again, best wishes for the New Year! And hope to catch you on the air.

73 Norm, WA4ZXV

January 2009

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3 0730 breakfast
4	5 2000 2m net	6	7 2100 6m net	8	9 Party	10 0730 breakfast
11	12 2000 2m net	13	14 2100 6m net	15	16	17 0730 breakfast
18	19 2000 2m net	20	21 2100 6m net	22	23	24 0730 breakfast
25	26 2000 2m net	27	28 2100 6m net	29 Happy New Year	30	31 0730 breakfast Hamfest
Feb 1	2 2000 2m net	3	4 2100 6m net	5	6	7 breakfast

GARS Recurring Calendar

- Monthly club meeting is the 2nd Tuesday of the month at 7:30 PM. Check the Web Site for Location.
- Every Monday at 8 PM local time: GARS Want, Swap, Sell, and Information Net on the GARS 2 meter repeater
- Every Wednesday at 9 PM local time: GARS 6 meter net on the GARS 6 meter repeater
- Every Saturday at 7:30 AM local time: GARS Weekly Family Breakfast, Golden Corral Restaurant, Riverside Drive, Lawrenceville

The GARZETTE

The GARZETTE is the official monthly organ of the Gwinnett Amateur Radio Society serving its members and other persons interested in the advancement of the amateur radio art.

Original articles, art, and photos are invited and encouraged. Previously copyrighted submissions cannot be accepted for reprinting unless permission from the appropriate publisher is provided in writing along with the information being submitted. If reprints are from publications allowing their unrestricted use, please include a copy of the printed permission contained in the publication.

If possible, bring your articles to the monthly meeting in Microsoft Word format or email to ka4kkf@arrl.net. Artwork can be accepted in most any graphics format and can be submitted via email to the same address. Alternate means of submittal can be arranged when necessary. In keeping with the amateur radio spirit, permission is hereby granted for the reproduction of *The GARZETTE* articles by other amateur radio club newsletters provided that proper credit is given to the individual author and to *The GARZETTE*.

The GARZETTE is published each month with the assistance of Hal Manning, who prints the news letter. Rick Patchin, KD4RFK does the final production work on *The GARZETTE* by folding & labeling. Bill Cherepy, WB4WTN, stamps and gets the end product to the Post Office each month. Norm Schklar, wa4zxv, manages email delivery. Many thanks to each of them and all article contributors.

Deadline for submissions is the 20th of each month for inclusion in the following month's issue.

For any additional information contact:
Newsletter Editor:

David Adcock ka4kkf
(770-271-9398)
ka4kkf@arrl.net

All correspondence relating to articles posted in *The GARZETTE* or for information concerning advertising rates should be directed to the following address:

Gwinnett Amateur Radio Society
P.O. Box 88
Lilburn, GA 30048
Attn: Newsletter Editor

GARS Communication System

Do you know a boy or girl
14 to 21 years old
who wants to:

Climb, Hike
Canoe, Camp
Talk on an amateur radio
Have Fun
Tell them about

Venture Crew 73

**We meet the second Tuesday
of each Month at 7:00PM
prior to the GARS meeting at
St. Marguerite D'Youville
Church..**

For more information Visit
www.gars.org/crew73
or contact Ray Back:

Email crew73@gars.org
Phone (770) 295-9174

70 Cm Repeater

444.525(+) MHz
82.5 PL Tone

APRS

144.390 -- 1200 Baud
W4GR

6 Meter Repeater

53.110 (-1 MHz)
82.5 PL Tone

D-Star

WD4STR
146.970 - (600KHZ)
440.550 + (5MHZ)

2 Meter Repeater

147.075(+) MHz
82.5 PL Tone

Main Repeater Site

Oak Street, Lawrenceville

Backup Repeater Site

Lanier Mountain, Snellville

Remote Receive Sites

Bogan Road, Buford

Goshen Springs Road,

Norcross

Lanier Mountain, Snellville



Metro Atlanta VE Exam Schedule

GARS publishes Metro Atlanta area VE exam schedules as a service and is not responsible for errors or changes. Call and confirm schedules before going. All sessions are walk-in. Take copies of current license and certificate of completed elements with you to all sessions. Find additional sessions online at www.arrl-ga.org

First Saturday, Even Months

9:00AM
EOC Building
Butch Nitz, AF4FS
(770) 968-8780

First Wednesday

7:00 PM
ARRL/VEC
Roberts School
4681 School Street,
Acworth
Jodi Escher AG4BK
770-387-1591

Second Saturday, Odd Months

ARRL VEC
8:30 AM
Stone Mountain Methodist
Church
5312 West Mountain St.
Stone Mountain
Bob Varone, W4ETN
(770) 978-3179

Third Saturday

CA VEC
9:00AM
Marietta First United
Methodist Church Room 305, 56
Whitlock Ave
Marietta
David Still, WB4RRD
(770) 973-2566

Fourth Tuesday

ARRL VEC
7:00 PM
United Way Service Center
6279 Fairburn Road,
Douglasville

Third Sunday

W5YI VEC
3:00 - 5:00 PM
Lawrenceville Masonic Lodge
465 South Perry Street
Lawrenceville, GA 30044
770-963-5721

Fourth Sunday

2:30 PM
Georgia Tech
GATECH-VANLEER ELEC ENGRG
BLDG-RMW218
777 ATLANTIC DRIVE
WWW.W4AQL.ORG
TALKIN 145.15-PL 167.9
ATLANTA, GA 30332
Contact: ALEXANDER G CARVER
(404)894-2936
ACARVER@ECE.GATECH.EDU



Metro Atlanta Club Meetings

First Tuesday

Kennehoochee ARC
Southern Polytechnic
State University
Meeting begins at 7:30 PM
Talk In 146.880(-)

Second Monday

Georgia Tech ARC
Room W218
Van Leer Electrical
Engineering Bldg.
Georgia Tech Campus
Meeting at 7:00 PM

First Thursday

Atlanta Radio Club
Georgia Red Cross HQ
1955 Monroe Dr., Atlanta
Meeting is at 7:30 PM
Talk In -146.820(-)

N.E. Georgia ARC

Commerce Public Library
Meeting is at 6:30 PM
Talk In - 147.225(+)
PL 123.0

Second Thursday

Alford Memorial Radio Club
Annistown Road Baptist Church
Intersection of Annistown Rd
& Spain Rd
Stone Mountain
Dinner at 6:00 PM
Meeting at 7:30 PM
Talk In - 146.760(-)

Third Tuesday

**North Fulton Amateur Radio
League**
Alpharetta EOC located at
2970 Webb Bridge Road, in Al-
pharetta
meeting at 7:30 PM
Talk In - 145.47(-)

Second Saturday

North GA QRP Club
Wieuca Baptist Church on
Peachtree Rd/Wieuca, 10 AM

Packet Radio Part 1

By WA4ZXV

I know that packet radio is part of many of our tools to use in ham radio. I've been tinkering with it for several months, and seem to have touched a lot of materials while cruising around the web. Over the next few months, we'll republish some of this information in the Garzette. You can go to the web and get it all at once, or just peruse the content here and soak up a little at a time.

Norm, WA4ZXV

INTRODUCTION TO PACKET RADIO By Larry Kenney, WB9LOZ
on the web at <http://www.choisser.com/packet/>

This series of eighteen articles was originally written in 1988 to appear in Nuts & Volts, the newsletter of the San Francisco Amateur Radio Club. The series has been widely distributed since then, with revisions issued in 1991, 1993, and 1995. Occasional revisions were made to this version on the web thereafter, in the late 1990s.

The author is no longer active in packet radio and is unable to provide up to date information on packet radio; however he has left this material on the Internet for access by those who might find it helpful.

INTRODUCTION TO PACKET RADIO - PART 1 WHAT IS PACKET RADIO? A SHORT HISTORY - HOW IT ALL BEGAN

It was in March, 1980, that the Federal Communications Commission approved the transmission of ASCII for Amateur Radio in the United States. That was a year and a half after Canadian hams had been

authorized to transmit digital "packet radio", and the Canadians had already been working on a protocol for it. Doug Lockhart, VE7APU, of Vancouver, British Columbia, had developed a device that he called a terminal node controller (TNC).

It worked with a modem to convert ASCII to modulated tones and convert the demodulated tones back to

ASCII. Doug had also formed the Vancouver Amateur Digital Communications Group (VADCG) and named his TNC the "VADCG board".

Hams here in the U.S. started experimenting with the VADCG board, but in December, 1980, a ham from the San Francisco Bay Area, Hank Magnuski, KA6M, put a digital repeater on 2 meters using a TNC that he had developed. A group of hams interested in Hank's TNC started working together on further developments in packet radio and formed the Pacific Packet Radio Society (PPRS). AM-RAD, the Amateur Radio Research and Development Corporation, in Washington, DC became the center for packet work on the east coast, and in 1981 a group of hams in Tucson, Arizona, founded the Tucson Amateur Packet Radio Corporation (TAPR).

Working together these groups developed a modified version of the commercial X.25 protocol called Amateur X.25 (AX.25) and in November, 1983, TAPR released the first TNC in kit form, the TAPR TNC1. In 1984, a great deal of packet experimentation was done, software for packet bulletin board systems was developed, and packet radio started becoming more and more popular all across the U.S. and Canada.

Packet Radio was one of the major developments to hit the world of Amateur Radio and thousands of hams soon caught the "packet bug". If you're wondering what it's all about and why so many people got so excited about it, continue reading. You're about to find out.

Continued on page 6

PACKET RADIO - WHAT IT'S ALL ABOUT

Packet seems to offer something different from other facets of Amateur Radio, yet it can be used for everything from a local QSO to a DX contact thousands of miles away, for electronic mail, message transmission, emergency communications, or just plain tinkering in the world of digital communications.

It presents a new challenge for those tired of the QRM on the low bands, a new mode for those already on FM, and a better, faster means of message handling for those on RTTY. Packet is for the rag chewer, the traffic handler, the experimenter, and the casual operator.

A ham can get involved very easily with relatively small out-of-pocket expenses. All you need is a transceiver, a computer, and a TNC or special packet modem and software. A two-meter rig is preferred, since that's where most of the packet activity is located. You probably already have the rig and the computer, so all you need to buy is the TNC, which costs just over \$100, or the special modem and software, which sell together for about \$50.

The TNC, the Terminal Node Controller, is a "little black box" that's wired between the computer and the radio. It contains software for controlling the outgoing and incoming transmissions for your station and a modem that converts the data from the computer into AFSK tones for transmission and changes the tones that are received by the radio into data for the computer. The TNC modem works much like a modem that's used to connect your computer to the telephone lines. It's a simple matter of wiring up a plug and a couple of jacks to become fully operational on packet. If you prefer to use the small modem instead of a TNC, you'll need special software for your computer to replace the software in the TNC. Either method works equally well.

Packet is communications between people either direct or indirect. You can work "keyboard to keyboard" or use electronic mailboxes or bulletin board systems to leave messages. Due to the error checking by the TNC, all of it is error free, too. (That is, as error free as the person at the Keyboard types it!) As the data is received it's continuously checked for errors, and it isn't accepted unless it's correct. You don't miss the information if it has errors, however, because the information is resent until it is correctly received.

The data that is to be transmitted is collected in the TNC and sent as bursts, or packets, of information, hence the name. Each packet has the callsign or address of who it's going to, who it's coming from and the route between the two stations included, along with the data and error checking. Since up to 256 characters can be included in each packet, more than three lines of text can be sent in a matter of a couple of seconds. There is also plenty of time between packets for several stations to be using the same frequency at the same time.

If all of this sounds confusing, don't let it bother you, because the TNC or special packet software does everything for you automatically. Packet radio might seem very confusing at first, but in a day or two you'll be in there with the best of them. In this series I'll be telling you all about packet radio - how you get on the air and how to use it. We'll talk about the little black box, the TNC, and tell you about all its inner-most secrets.

We'll discuss mailboxes, bulletin board systems, and the packet networks that allow you to work stations hundreds, even thousands, of miles away using just a low powered rig on 2 meters, 220 or 450.

The world of packet radio awaits you!

Part 1 last revised February 8, 1997.

Improving broadband speeds

By Kim Komando

1/5/2009

Stephen in Sugar Land, TX, wrote with a question about Windows Vista. He read my tip on tweaking broadband connections in Windows XP Professional. He wants to know if the advice applies to Windows Vista.

Windows XP reserves some of your bandwidth. Fortunately, it isn't too difficult to tweak your broadband settings in

Windows XP Professional. You can tell XP not to reserve any of your bandwidth. In case you missed it, my tip [explains these adjustments](#). It will help you eliminate annoying slowdowns.

Vista has a different TCP/IP (Transmission Control Protocol/Internet Protocol) stack than Windows XP. What's a TCP/IP stack, you ask? TCP/IP is the basic language that allows your computer to communicate with other machines.

The TCP/IP stack is the software and protocols that make up TCP/IP.

For example, Vista's TCP/IP stack stores configuration settings differently than Windows XP. So, you won't be able to tweak the settings like you can in XP Professional. That's a bummer. But, fortunately, Vista optimizes your broadband connections. It will maximize your broadband speed automatically.

If you're still not happy with your broadband speed, there is another solution. You can upgrade to a faster tier. My tip will help you decide on [the right broadband tier](#). Of course, providers sometimes overstate broadband speeds. To find your connection speed, visit my site. I have a tool that will [test your broadband speed](#) quickly and easily.

Copyright 2006 WestStar TalkRadio Network. Subscribe to Kim Komando's free e-mail newsletters at: www.komando.com

All I Want for Christmas Is....

By KB6NU

When I was a kid, we had an album (remember records on vinyl?) that had a bunch of Christmas songs for kids. The song I remember most goes:

All I want for Christmas is my two front teeth,
My two front teeth, my two front teeth.

Gee, if I could only have my two front teeth,
Then I could wish you Merry Chrith-math (sang with a lisp).

Seeing as how I've had my two front teeth for nearly 50 years now, and I pretty much have everything I want, I got to thinking about what I want for ham radio for Christmas this year. Here's what I've come up with so far. In no particular order, I want:

- MORE SUNSPOTS!
- the median age for ham radio operators to actually decrease this year. This means not only recruiting kids, but also younger adults.
- the pessimists who are continually talking down ham radio to find new joy in the hobby and begin working to make it great.
- the FCC to appoint someone as effective as Riley Hollingsworth to take over as the enforcer of the amateur radio service regulations.
- the FCC to pay a little more attention to amateur radio regulations and not treat them as an afterthought.
- the silliness on 75m phone and 14.275 MHz to go QRT.
- the ARRL to work harder on making itself truly the "national association for amateur radio" and on increasing the percentage of licensed hams that are ARRL members.
- to be able to brag about all of ham radio's "purposes," not only providing emergency and public service communications. According to Part 97, these are:
 - * advancing the state of the radio art;
 - * improving our technical and operating skills;
 - * expanding the number of trained operators, technicians, and electronics experts; and
 - * enhancing international goodwill.
- ham radio clubs to grow and thrive even in these tough economic times.

When I asked this question on Twitter, I got a couple of answers that were versions of a couple of wishes above, but I also got a few more:

- WORMT wants "all of us to get on the air more and act as good ambassadors for the hobby," and
 - NT7S wants the hearts of ham grinchers to grow a couple of sizes.
 - N!WBV wants redesigns for most ham radio websites.
-

GARS

APPAREL ORDER FORM

NAME: _____ PHONE # _____

CALL: _____

NAME TO BE EMBROIDERED: _____

CALL SIGN TO BE EMBROIDERED: _____

ITEM	SIZE	QUANTITY	PRICE	TOTAL
T-SHIRT				
Red WITHOUT name & call			\$20.00	
White WITHOUT name & call			\$20.00	
Red WITH name & call			\$20.00	
White WITH name & call			\$20.00	
GOLF SHIRT -- WITHOUT name & call				
Red			\$24.00	
White			\$24.00	
GOLF SHIRT -- WITH name & call				
Red			\$28.00	
White			\$28.00	
SWEATSHIRT				
Red WITHOUT name & call			\$30.00	
White WITHOUT name & call			\$30.00	
Red WITH name & call			\$30.00	
White WITH name & call			\$30.00	
LIGHTWEIGHT JACKET -- RED ONLY				
WITHOUT name & call			\$31.00	
WITH name & call			\$35.00	
HEAVYWEIGHT JACKET -- RED ONLY				
WITHOUT name & call			\$41.00	
WITH name & call			\$45.00	
GARS BADGE -- WITH name & call			\$9.00	
HAT -- WITHOUT name & call				
Red			\$9.00	
White			\$9.00	
HAT -- WITH name & call				
Red			\$14.00	
White			\$14.00	

TOTAL ORDER PRICE: _____

Please attach your check made payable to GARS and return to Dick Sandberg, N9SXJ or mail to:

GARS
P.O. Box 88
Lilburn, Georgia 30048

NOTE: Please allow at least 4 weeks for delivery of items. Some items may need to be special ordered.

Thanks and 73s! -- Dick N9SXJ

Gwinnett Amateur Radio Society
P.O. Box 88
Lilburn, GA 30048

MEMBERSHIP APPLICATION

NEW MEMBER**RENEWAL**

Amateur Call Sign _____ License Class Novice Technician General
Advanced Extra

Name _____

Address _____

City _____ State _____ Zip _____ - _____

Email address _____

Home Telephone _____ Work Telephone _____

Cell Telephone _____ Date of Birth ____ / ____ / ____ (mm/dd/yy)

ARRL Member Yes No Life

Interests _____

I prefer to receive the GARZETTE newsletter by: US Mail Email (please check only one)

Type of MembershipOptional Contributions

Individual \$30.00 annually
Student \$15.00 annually
Senior \$15.00 annually (over age 65)
Family ** \$35.00 annually

Repeater Fund \$ _____

Scholarship Fund \$ _____

** Available for family members residing at the same address

Additional Family Members **

Name _____ Date of Birth ____ / ____ / ____ (mm/dd/yy)

License Class Technician General Extra ARRL Member Yes No Life

Interests _____

Name: _____ Date of Birth ____ / ____ / ____ (mm/dd/yy)

License Class Technician General Extra ARRL Member Yes No Life

Interests _____

I agree to abide by the By-Laws of the Gwinnett Amateur Radio Society and understand that membership is subject to the approval of the Club.

Applicant Signature _____ Date ____ / ____ / ____

GARS Appreciates these fine sponsors that support our great organization!

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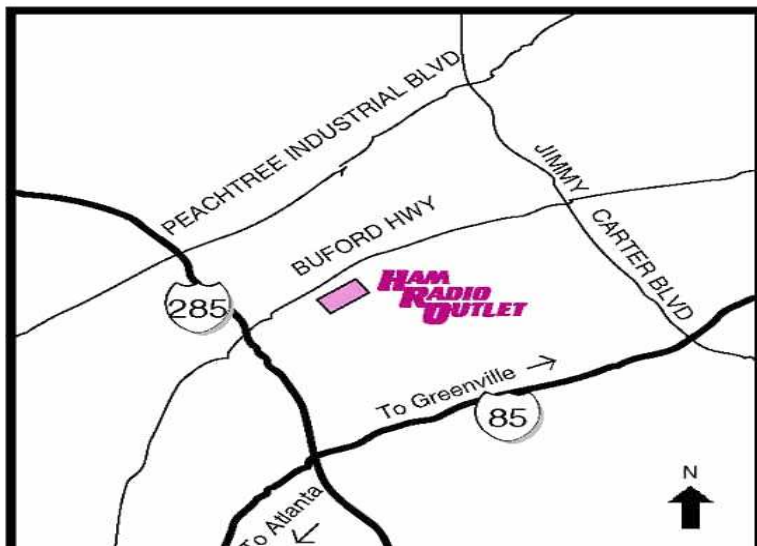
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Dale W4GCL

Jim N1ABM

Josh W4JDH

Brian KC4UKR



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Yaesu
Alpha Delta
Arrow
Butternut
Create
Cushcraft
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KLM
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M2
Premier
Valor
Van Gorden

Gwinnett Amateur Radio Society
P.O. Box 88
Lilburn, GA 30048



To receive the **Garzette** via e mail contact, please contact the membership chairman

Saturday Morning

Breakfast

Join us at the Golden Coral
on Riverside Drive in

Lawrenceville at 7:30 a.m.

Next Meeting

Tuesday, January 13th

The Meetings are on the
Second Tuesday of the
month 7:30pm at the
St Marguerite
D'Youville Church,

85 Gloster Rd NW,

Lawrenceville, GA 30044.
Just off Highway 29 SW
of Lawrenceville.

Directions on the Web
site.

<http://www.gars.org>

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and Family are ready to Make a Move.

**References available upon Request